ABSTRACT

An actuator as a drive source of robots and the like is usable for housekeeping assistance, job assistance, and nursing help. The drive source itself is small, light, flexible, and safe. A manufacturing method for a planar electrode support therefor is also described. The actuator has an electrolyte layer in contact with a conductive polymer layer disposed in between a first electrode having the conductive polymer layer attached thereto and opposite second electrode, for deforming the conductive polymer layer by application of electric fields to the electrodes. The first electrode has low rigidity in a longitudinal direction of the conductive polymer layer to facilitate expansion and contraction thereof.